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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,197	03/01/2002	Ajay Kumar	5681-11800	8610

7590

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EXAMINER

HWANG, JOON H

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/087,197

Applicant(s)

KUMAR ET AL.

Examiner

Joon H. Hwang

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2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-9,11,15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) 2,10 and 16 is/are ~~withdrawn from consideration~~ *Canceled*.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11,15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The applicants amended claims 1, 8-9, 15, and 17-20 and canceled claims 2, 10, and 16 in the amendment received on 9/1/05.

The pending claims are 1, 3-9, 11-15, and 17-20.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 8-9, and 15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 15 and 17-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. "A tangible computer accessible medium" in 1<sup>st</sup> – 2<sup>nd</sup> lines of claim 15 is insufficient to render the claim **tangibly embodied** in a manner so as to be executable. Changing to "A computer readable storage medium" is suggested to overcome 101 rejection. Since claims 17-20 incorporate the deficiency of claim 15 and do not add tangibility to the claimed subject matter, they are likewise rejected.

### ***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 3-5, 8-9, 11-12, 15, and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,870,759).

With respect to claim 1, Montero teaches a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality attributes (i.e., a common session database, fig. 1, sections 18-19 on page 2, section 26 on pages 2 and 3, and section 35 on page 3). Montero teaches a first application server of the plurality of application servers, comprising a client state of the session data accessible to processes executing within the application server, wherein the first application server is configured to track accesses of the attributes of the client state (fig. 1, abstract, section 11 on page 1, sections 14 and 20 on page 2, sections 35-36 on page 3, and sections 42 and 46 on page 4). Montero teaches the distributed store configured to synchronize the primary state with the client state according to the tracked accessed attributes (section 26 on pages 2-3). Montero does not explicitly disclose the first application server is configured to store information identifying the accessed attributes to track accesses of the attributes of the client state. However, Bauer teaches a server is configured to track accesses of data, wherein to track accesses of the data, the server is configured to store information identifying the accessed data (i.e., an update log, line 61 in col. 3 thru line 27 in col. 4, lines 48-59 in col. 9, and lines 52-59 in col. 1) in order to reduce

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communication costs and delays in data synchronization. Therefore, based on Montero in view of Bauer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Bauer to the system of Montero in order to reduce communication costs and delays in data synchronization.

With respect to claim 3, Montero does not explicitly disclose tracking mutable attributes and not tracking immutable attributes. However, Bauer teaches tracking mutable data items and not tracking immutable data items (lines 53-60 in col. 3 and lines 28-52 in col. 28). Therefore, the limitations of claim 3 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

The limitations of claim 4 are rejected in the analysis of claim 3 above, and the claim is rejected on that basis.

With respect to claim 5, Montero teaches the distributed store is configured to update the primary state with the subset of the accessed attributes that have been modified for synchronizing the primary state with the client state (section 26 on pages 2-3). Montero does not explicitly disclose performing a comparison of the tracked accessed attributes and a benchmark of the session data comprising a previous version of the one or more attributes. However, Bauer teaches performing a comparison of the tracked accessed attributes and a benchmark (i.e., a before-image data) comprising a previous version of the one or more attributes to determine a subset of the tracked accessed attributes that are modified in respect to the benchmark (i.e., the before-image data, line 50 in col. 1 thru line 2 in col. 3, lines 34-52 in col. 3, lines 27-67 in col.

9, and lines 1-11 in col. 10). Therefore, the limitations of claim 5 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

The limitations of claims 8-9, 11, 15, and 17 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

The limitations of claims 12 and 18 are rejected in the analysis of claim 5 above, and these claims are rejected on that basis.

7. Claims 6, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,870,759), and further in view of Morris (U.S. Patent No. 5,813,017).

With respect to claim 6, Montero and Bauer disclose the claimed subject matter as discussed above. Bauer further discloses many other comparison methods for determining modifications since a last synchronization (lines 47-59 in col. 9). Montero and Bauer do not explicitly disclose a binary comparison. However, Morris discloses a binary comparison for determining differences for database synchronization (abstract and line 47 in col. 11 thru line 13 in col. 12). Therefore, based on Montero in view of Bauer, and further in view of Morris, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Morris to the system of Montero in order to determine differences of two versions of data, thereby performing an effective database synchronization.

The limitations of claims 13 and 19 are rejected in the analysis of claim 6 above, and these claims are rejected on that basis.

8. Claims 7, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,870,759), and further in view of Lin et al. (U.S. Patent No. 6,546,135).

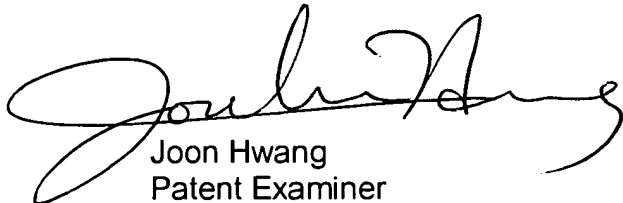
With respect to claim 7, Montero and Bauer disclose the claimed subject matter as discussed above. Bauer further discloses many other comparison methods for determining modifications since a last synchronization (lines 42-53 in col. 9). Montero and Bauer do not explicitly disclose an object graph comparison. However, Lin discloses comparing data differences using DAG (directed acyclic graph) representation, which teaches an object graph comparison (abstract, line 40 in col. 7 thru line 14 in col. 8, and fig. 5). Therefore, based on Montero in view of Bauer, and further in view of Lin, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Lin to the system of Montero in order to determine differences of two versions of data, thereby performing an effective database synchronization.

The limitations of claims 14 and 20 are rejected in the analysis of claim 7 above, and these claims are rejected on that basis.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Joon Hwang', is written over the printed name and title.

Joon Hwang  
Patent Examiner  
Technology Center 2100

11/10/05